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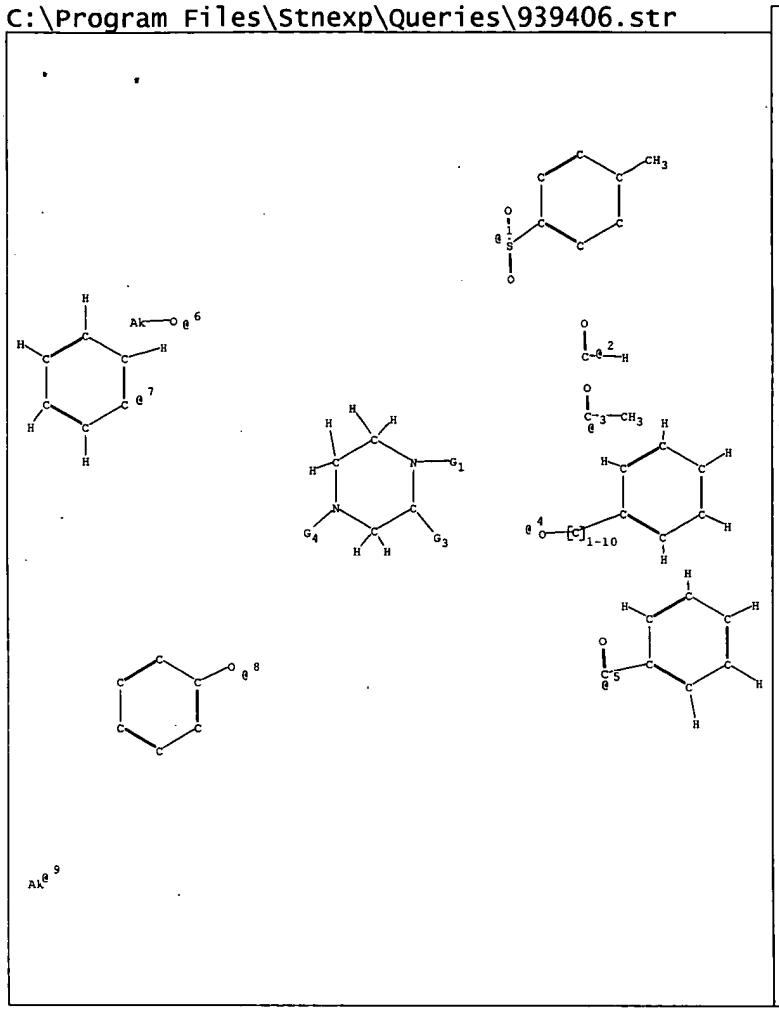
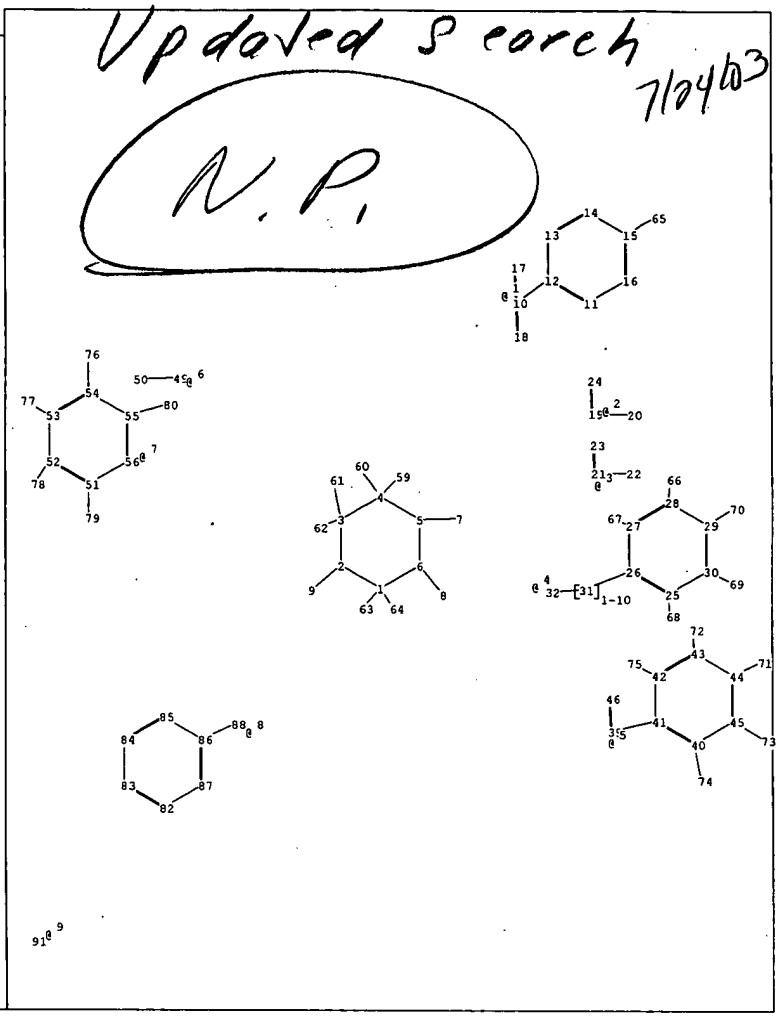


Updated Search 7/24/03

N.P.



chain nodes :
7 8 9 10 17 18 19 20 21 22 23 24 31 32 39 46 49 50 59 60 61 62 63
64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 88 91
ring nodes :
1 2 3 4 5 6 11 12 13 14 15 16 25 26 27 28 29 30 40 41 42 43 44 45
51 52 53 54 55 56 82 83 84 85 86 87
chain bonds :
1-63 1-64 2-9 3-61 3-62 4-59 4-60 5-7 6-8 10-17 10-18 10-12 15-65 19-20
19-24 21-22 21-23 25-68 26-31 27-67 28-66 29-70 30-69 31-32 39-41 39-46 40-74
42-75 43-72 44-71 45-73 49-50 51-79 52-78 53-77 54-76 55-80 86-88
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 11-12 11-16 12-13 13-14 14-15 15-16 25-26 25-30
26-27 27-28 28-29 29-30 40-41 40-45 41-42 42-43 43-44 44-45 51-52 51-56 52-53
53-54 54-55 55-56 82-83 82-87 83-84 84-85 85-86 86-87
exact/norm bonds :
1-2 1-6 2-3 2-9 3-4 4-5 5-6 5-7 6-8 10-17 10-18 10-12 19-24 21-23 31-32
39-46 49-50 86-88
exact bonds :
1-63 1-64 3-61 3-62 4-59 4-60 15-65 19-20 21-22 25-68 26-31 27-67 28-66
29-70 30-69 39-41 40-74 42-75 43-72 44-71 45-73 51-79 52-78 53-77 54-76 55-80
normalized bonds :
11-12 11-16 12-13 13-14 14-15 15-16 25-26 25-30 26-27 27-28 28-29 29-30 40-41
40-45 41-42 42-43 43-44 44-45 51-52 51-56 52-53 53-54 54-55 55-56 82-83 82-87
83-84 84-85 85-86 86-87

G1:[*1],[*2],[*3],[*4],[*5]

G3:[*4],[*6],[*7],[*8],[*9]

G4:[*4],[*6],[*7],[*8],[*9]

Connectivity :
50:1 E exact RC ring/chain 91:1 E exact RC ring/chain
Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:CLASS 18:CLASS 19:CLASS
20:CLASS 21:CLASS 22:CLASS 23:CLASS 24:CLASS 25:Atom 26:Atom 27:Atom 28:Atom
29:Atom 30:Atom 31:CLASS 32:CLASS 39:CLASS 40:Atom 41:Atom 42:Atom 43:Atom
44:Atom 45:Atom 46:CLASS 49:CLASS 50:CLASS 51:Atom 52:Atom 53:Atom 54:Atom
55:Atom 56:Atom 59:CLASS 60:CLASS 61:CLASS 62:CLASS 63:CLASS 64:CLASS 65:CLASS
66:CLASS 67:CLASS 68:CLASS 69:CLASS 70:CLASS 71:CLASS 72:CLASS 73:CLASS 74:CLASS
75:CLASS 76:CLASS 77:CLASS 78:CLASS 79:CLASS 80:CLASS 82:Atom 83:CLASS 84:CLASS
85:CLASS 86:Atom 87:Atom 88:CLASS 91:CLASS

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FULL SCREEN SEARCH COMPLETED - 214738 TO ITERATE

100.0% PROCESSED  214738 ITERATIONS  (     1 INCOMPLETE)       6 ANSWERS
SEARCH TIME: 00.00.07

L3            6 SEA SSS FUL L1

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                                                         ENTRY    SESSION
FULL ESTIMATED COST                                     148.55     148.76

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FILE COVERS 1907 - 25 Jul 2003  VOL 139 ISS 5
FILE LAST UPDATED: 24 Jul 2003  (20030724/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.


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L4            6 L3

=> d l4 1-6 bib abs hitstr
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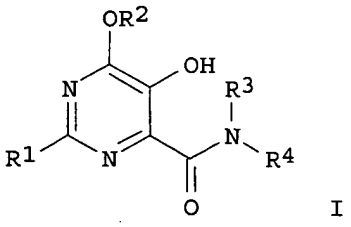
L4 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2003:334911 CAPLUS
DN 138:354000
TI Preparation of dihydroxypyrimidine carboxamide inhibitors of HIV integrase
IN Di Francesco, Maria Emilia; Gardelli, Cristina; Harper, Steven; Matassa, Victor Giulio; Muraglia, Ester; Nizi, Emanuela; Pace, Paola; Pacini, Barbara; Petrocchi, Alessia; Poma, Marco; Summa, Vincenzo
PA Istituto di Ricerche di Biologia Molecolare P. Angeletti S.p.A., Italy
SO PCT Int. Appl., 315 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003035076	A1	20030501	WO 2002-GB4742	20021021

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2001-348195P P 20011026
OS MARPAT 138:354000
GI



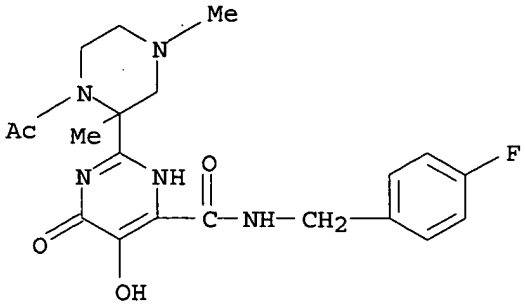
I

AB The title 4,5-dihydroxypyrimidine-6-carboxamides [I; R1 = H, alkyl, haloalkyl, alkoxy, etc.; R2 = H, alkyl, haloalkyl, hydroxyalkyl, etc.; R3 = H, alkyl; R4 = H, alkyl, haloalkyl, etc.] which are inhibitors of HIV integrase and inhibitors of HIV replication, and therefore are useful in the prevention and treatment of infection by HIV and in the prevention, delay in the onset, and treatment of AIDS, were prepd. Thus, refluxing N-hydroxythiophene-2-carboximidamide with di-Me acetylenedicarboxylate in CHCl3 followed by reacting the resulting Me 5,6-dihydroxy-2-(2-thienyl)pyrimidine-4-carboxylate with 4-fluorobenzylamine in DMF afforded I [R1 = 2-thienyl; R2 = H; R3 = 4-FC6H4CH2; R4 = H]. The compds. I are employed against HIV infection and AIDS as compds. per se or in the form of pharmaceutically acceptable salts. The compds. I and their salts can be employed as ingredients in pharmaceutical compns., optionally in combination with other antivirals, immunomodulators, antibiotics or vaccines.
IT **519032-89-4P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of dihydroxypyrimidine carboxamide inhibitors of HIV integrase)

RN 519032-89-4 CAPLUS

CN 4-Pyrimidinecarboxamide, 2-(1-acetyl-2,4-dimethyl-2-piperazinyl)-N-[(4-fluorophenyl)methyl]-1,6-dihydro-5-hydroxy-6-oxo- (9CI) (CA INDEX NAME)

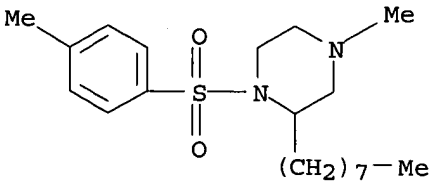


RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:400770 CAPLUS
DN 137:382480
TI Mitochondrial gene rearrangements confirm the parallel evolution of the crab-like form
AU Morrison, C. L.; Harvey, A. W.; Lavery, S.; Tieu, K.; Huang, Y.; Cunningham, C. W.
CS Department of Fisheries Science, College of William and Mary, Gloucester Point, VA, 23062, USA
SO Proceedings of the Royal Society of London, Series B: Biological Sciences (2002), 269(1489), 345-350
CODEN: PRLBA4; ISSN: 0962-8452
PB Royal Society
DT Journal
LA English
AB The repeated appearance of strikingly similar crab-like forms in independent decapod crustacean lineages represents a remarkable case of parallel evolution. Uncertainty surrounding the phylogenetic relationships among crab-like lineages has hampered evolutionary studies. As is often the case, aligned DNA sequences by themselves were unable to fully resolve these relationships. Four nested mitochondrial gene rearrangements-including 1 of the few reported movements of an arthropod protein-coding gene-are congruent with the DNA phylogeny and help to resolve a crucial node. A phylogenetic anal. of DNA sequences, and gene rearrangements, supported 5 independent origins of the crab-like form, and suggests that the evolution of the crab-like form may be irreversible. This result supports the utility of mitochondrial gene rearrangements in phylogenetic reconstruction.
IT **243866-56-0**
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(amino acid sequence; mitochondrial gene rearrangements confirm the parallel evolution of the crab-like form)
RN 243866-56-0 CAPLUS
CN L-Valine, L-leucyl-L-seryl-L-tryptophyl-L-glutaminyl-L-seryl-L-alanyl-L-leucyl-L-valyl-L-alanyl-L-lysyl-L-prolyl-L-leucyl-L-histidyl-L-seryl-L-seryl-L-leucyl-L-seryl-L-isoleucyl-L-phenylalanyl-L-seryl-L-tyrosyl-L-tyrosyl-L-seryl-L-cysteinyl-L-arginyl-L-seryl-L-methionyl-L-phenylalanyl-L-isoleucyl-L-leucyl- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2001:900136 CAPLUS
DN 137:15276
TI Structure-activity relationships in platelet-activating factor (PAF). 11-From PAF-antagonism to phospholipase A2 inhibition: syntheses and structure-activity relationships in 1-arylsulfamido-2-alkylpiperazines
AU Binisti, Carine; Assogba, Leon; Touboul, Estera; Mounier, Carine; Huet, Jack; Ombetta, Jean-Edouard; Dong, Chang Zhi; Redeuilh, Catherine; Heymans, Francoise; Godfroid, Jean-Jacques
CS Laboratoire de Pharmacochimie Moleculaire, Universite Paris 7-Denis Diderot, Paris, F-75251, Fr.
SO European Journal of Medicinal Chemistry (2001), 36(10), 809-828
CODEN: EJMCA5; ISSN: 0223-5234
PB Editions Scientifiques et Medicales Elsevier
DT Journal
LA English
AB 1-Benzoyl-2-alkyl piperazines are strong inhibitors of Group I and II secreted PLA2s. An improvement of their activity was obtained by replacing the amide function by a sulfamide and by introduction of electro-donor substituents on the para position of the benzenesulfonyl moiety. Neither the position on one of the carbon of the piperazine ring nor the abs. configuration of this carbon have an effect on the affinity for one or the other group of PLA2, but the lipophilicity remains for these series an essential parameter. In addn. structure-activity relationships allow new hypothesis on interaction of these piperazine derivs. with the catalytic site of PLA2s.
IT **433934-45-3P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(structure-activity relationships in platelet-activating factor)
RN 433934-45-3 CAPLUS
CN Piperazine, 4-methyl-1-[(4-methylphenyl)sulfonyl]-2-octyl-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

RE.CNT 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2000:756684 CAPLUS
DN 133:321901
TI Novel synthesis of piperazine ring
IN Dolitzky, Ben-Zion
PA Teva Pharmaceutical Industries Ltd., Israel; Teva Pharmaceuticals Usa, Inc.
SO PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000063185	A1	20001026	WO 2000-US9418	20000407
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	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
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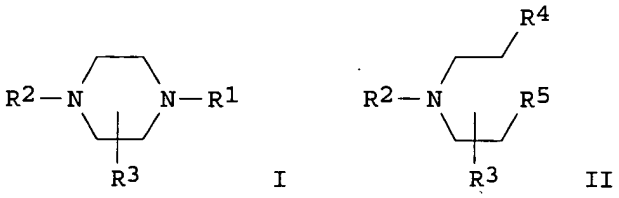
	EP 1178972	A1	20020213	EP 2000-921933	20000407
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002542234	T2	20021210	JP 2000-612277	20000407
	US 2002035256	A1	20020321	US 2001-939406	20010824
	HR 2001000759	A1	20030228	HR 2001-759	20011018
PRAI	US 1999-130048P	P	19990419		
	US 2000-545011	XX	20000407		
	WO 2000-US9418	W	20000407		

OS CASREACT 133:321901; MARPAT 133:321901
GI



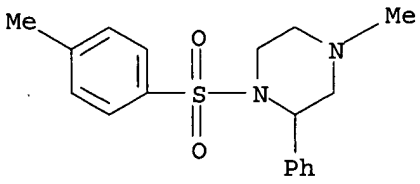
AB A novel process for prepg. the compds I [R1 = (un)subsituted alkyl, alkoxy, aryl, aryloxy, arylalkoxy; R2 = (un)substituted alkyl, alkoxy, aryl, aryloxy, arylalkoxy, tosyl, formyl, acetyl, amino; R3 = (un)substituted alkyl, alkoxy, aryl, aryloxy, arylalkoxy], comprising the step of reacting the compd. II [R4, R5 = F, Cl, Br, I] with H2NR1, is disclosed. The compds. I are useful as intermediates in the synthesis of the antidepressant mirtazapine and other tetracyclic compds.

IT **303069-12-7P**
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(novel synthesis of piperazine ring)

RN 303069-12-7 CAPLUS

CN Piperazine, 4-methyl-1-[(4-methylphenyl)sulfonyl]-2-phenyl- (9CI) (CA INDEX NAME)



L4 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1999:427751 CAPLUS
DN 131:226345
TI Mitochondrial Genes Collectively Suggest the Paraphyly of Crustacea with Respect to Insecta
AU Garcia-Machado, Erik; Pempera, Malgorzata; Dennebouy, Nicole; Oliva-Suarez, Mario; Mounolou, Jean-Claude; Monnerot, Monique
CS Calle 1ra No. 2808, Centro de Investigaciones Marinas, Universidad de La Habana, C. Habana, Cuba
SO Journal of Molecular Evolution (1999), 49(1), 142-149
CODEN: JMEVAU; ISSN: 0022-2844
PB Springer-Verlag New York Inc.
DT Journal
LA English
AB Complete sequences of seven protein coding genes from Penaeus notialis mitochondrial DNA were compared in base compn. and codon usage with homologous genes from Artemia franciscana and four insects. The crustacean genes are significantly less A + T-rich than their counterpart in insects and the pattern of codon usage (ratio of G + C-rich vs. A + T-rich codon) is less biased. A phylogenetic anal. using amino acid sequences of the seven corresponding polypeptides supports a sister-taxon status for mollusks-annelid and arthropods. Furthermore, a distance matrix-based tree and two most-parsimonious trees both suggest that crustaceans are paraphyletic with respect to insects. This is also supported by the inclusion of Panulirus argus COII (complete) and COI and COIII (partial) sequence data. From anal. of single and combined genes to infer phylogenies, it is obsd. that obtained from single genes are not well supported in most topologies cases and notably differ from that of the tree based on all seven genes.
IT **243866-56-0**
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(amino acid sequence; mitochondrial gene sequences suggest paraphyly of crustacea with respect to insecta)
RN 243866-56-0 CAPLUS
CN L-Valine, L-leucyl-L-seryl-L-tryptophyl-L-glutaminyl-L-seryl-L-alanyl-L-leucyl-L-valyl-L-alanyl-L-lysyl-L-prolyl-L-leucyl-L-histidyl-L-seryl-L-seryl-L-leucyl-L-seryl-L-isoleucyl-L-phenylalanyl-L-seryl-L-tyrosyl-L-tyrosyl-L-seryl-L-cysteinyl-L-arginyl-L-seryl-L-methionyl-L-phenylalanyl-L-isoleucyl-L-leucyl- (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RE.CNT 61 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1969:87746 CAPLUS
DN 70:87746
TI Composition and structure of 2-methylpiperazine-carbon disulfide complex
AU Nishimura, Haruki; Kinugasa, Tomoko
CS Res. Lab., Dainippon Pharm. Co., Ltd., Osaka, Japan
SO Chemical & Pharmaceutical Bulletin (1969), 17(1), 94-7
CODEN: CPBTAL; ISSN: 0009-2363
DT Journal
LA English
AB 2-Methylpiperazine-CS2 complex, obtained by the reaction of 2-methylpiperazine with CS2, was not 2-methylpiperazine-2-carbodithioic acid, but a mixt. composed of 3-methylpiperazine-1-carbodithioic acid and the 2-methylpiperazine salt of 2-methylpiperazine-1,4-dicarbodithioic acid.
IT **23121-58-6P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 23121-58-6 CAPLUS
CN Piperazine, 2,4-dimethyl-1-(p-tolylsulfonyl)-, monopicrate (8CI) (CA INDEX NAME)

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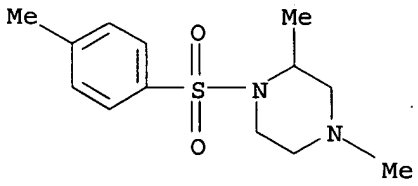
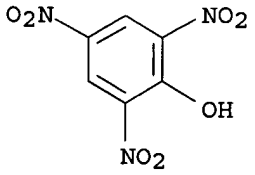


CM 2

CRN 88-89-1
CMF C6 H3 N3 O7



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FILE LAST UPDATED:  01 May 1997 (19970501/UP)

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  display formats.

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L5            0 L3

=> log h
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
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FULL ESTIMATED COST                                     0.40     173.99

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CA SUBSCRIBER PRICE                                     0.00      -3.91

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